

Amendments to the Abstract:

Please replace the Abstract with the following amended Abstract:

A reflective member is fixedly or movably provided near the pupil plane of a projection optical system with which a projection exposure apparatus is equipped. A collimated measuring beam with an exposure wavelength is incident from the object plane side or image plane side of the projection optical system, and the intensity of the beam reflected by the reflective member is detected photoelectrically to measure a value corresponding to the attenuation factor (transmissivity or reflectivity) of the projection optical system or the variation with time of the attenuation factor (transmissivity or reflectivity) of the projection optical system. In accordance with the measurement results, the exposing conditions when a photosensitive substrate is exposed are corrected to avoid the deterioration of the exposure control precision due to the variation of the attenuation factor ~~(transmissivity variation or reflectivity variation) which is caused in the projection optical system and illumination optical system of a projection exposure apparatus which uses ultraviolet illumination light.~~